

## Claims

1.

- 1           A method of making a preform assembly, said method including:
- 2           (a)     providing a finish ring of plastic construction,
- 3           (b)     placing said finish ring onto a core pin,
- 4           (c)     introducing a preform polymer into a mold cavity,
- 5           (d)     placing said core pin and finish ring into said mold cavity around said core
- 6     pin, and
- 7           (e)     compression molding said preform polymer to said finish ring.

2.

- 1           The method of claim 1 wherein said step (a) includes providing said finish ring with
- 2     an internal surface having at least one radial interengagement feature, such that a portion of said
- 3     preform polymer flows during said step (e) into interengagement with said at least one radial
- 4     interengagement feature during said compression molding step.

3.

- 1           The method of claim 2 wherein said step (a) includes said at least one radial
- 2     interengagement feature being at least one radial recess, such that a portion of said preform polymer
- 3     flows into said at least one radial recess during said compression molding step.

4.

1           The method of claim 3 wherein said step (a) also includes said at least one radial  
2 recess being at least one annular groove, such that a portion of said preform polymer flows into said  
3 at least one annular groove during said compression molding step.

5.

1           The method of claim 1 wherein said step (a) includes providing said finish ring with  
2 an internal surface having at least a portion thereof greater in diameter than said core pin, such that  
3 a gap is formed during said step (e) between said at least a portion of said internal surface, said core  
4 pin, and a forward edge of said preform polymer, said gap being provided to accommodate within-  
5 tolerance variation of a molten charge of said preform polymer to prevent overpacking of said  
6 preform polymer into said finish ring.

6.

1           A preform assembly produced by the method of claim 5.

7.

1           A preform assembly produced by the method of claim 1.

8.

1           A method of making a container assembly includes blow molding the preform  
2 assembly of claim 7.

9.

1 A container assembly produced by the method of claim 8.

10.

1 A preform assembly for blow molding a container assembly, which includes:

2 a molded plastic finish ring, and

3 a plastic preform compression molded to said finish ring such that a neck portion

4 of said plastic preform radially interengages said finish ring.

11.

1 The preform assembly set forth in claim 10 wherein said finish ring includes at

2 least one internal surface with at least one radial interengagement feature formed therein, further

3 wherein said neck portion of said plastic preform radially interengages with said at least one

4 radial interengagement feature.

12.

1 The preform assembly set forth in claim 10 wherein said finish ring includes at

2 least one tapered internal surface, at least one straight internal surface, and a transition point

3 therebetween, and wherein there is an open gap between said transition point and a forward edge

4 of said neck portion of said plastic preform to prevent said neck portion of said plastic preform

5 from being overpacked into said finish ring.

13.

1           A container assembly blow molded from a preform assembly produced from  
2   compression molding a preform to a molded plastic finish ring, said container assembly includes:  
3           said molded plastic finish ring, and  
4           a plastic container having a neck portion thereof interengaging said finish ring.

14.

1           The container assembly set forth in claim 13 wherein said finish ring includes at  
2   least one internal surface with at least one radial interengagement feature formed therein, and  
3   wherein said neck portion of said plastic container interengages with said at least one radial  
4   interengagement feature.

15.

1           The container assembly set forth in claim 14 wherein said finish ring includes at  
2   least one tapered internal surface, at least one straight internal surface, and a transition point  
3   therebetween, and wherein a gap is defined between said transition point and a forward edge of  
4   said neck portion of said plastic container to prevent said neck portion of said plastic container  
5   from being overpacked into said finish ring.